



**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 09/965,423  
Filing Date: September 27, 2001  
Applicants: Ali Rihan et al.  
Group Art Unit: 1713  
Examiner: Tatyana Zalukaeva  
Title: Fast Drying Clearcoat Refinish Composition  
Docket Nos.: IN-5501 (BASF)  
0906-000311 (Harness, Dickey & Pierce)

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Director of the United States Patent and Trademark Office  
P.O. Box 1450  
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**Appellants' Brief Under 37 C.F.R. § 1.192**

Sir:

This is an appeal from the Office Action mailed March 4, 2003, finally rejecting all the claims. A Notice of Appeal was mailed on April 30, 2003 appealing all of the rejected claims. This Appeal Brief is due, with the accompanying request for a two-month extension, on August 30, 2003.

This Brief is submitted in triplicate and is accompanied by the fee under 37 C.F.R. § 1.17(c).

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### Real Party in Interest

The real party in interest is BASF Corporation, a corporation of the State of Delaware, to which the inventors assigned all rights in this invention. The assignment was recorded in the United States Patent and Trademark Office on September 27, 2001 at reel 012212, frame 0441.

### Related Appeals and Interferences

There are no related appeals or interferences.

### Status of Claims

All of the claims, claims 1-25, are pending in the application and stand finally rejected. This appeal is taken as to all of the pending, rejected claims.

### Status of Amendments

No amendment was filed after the final rejection.

## Summary of the Invention

Appellants claim a refinish clearcoat composition and a method of refinishing a substrate. Refinish topcoat coatings, like the original finish topcoats, may be applied in two layers, a first layer of a pigmented basecoat composition and a second layer of an unpigmented, clearcoat composition. Page 1, lines 11-20 & page 2, line 20. Unlike the original finish topcoats, automotive refinish topcoats must either be thermoplastic or be curable at ambient temperature at low temperature (e.g., up to 150F). Page 1, lines 20-25 & page 2, lines 10-14. The applied refinish coating may not fully cure for days, but it is desirable to have the applied coating become "dry to handle" in a short time. Page 2, lines 2-9. While cellulose acetate butyrate resins have been added to refinish coating compositions in the past to shorten the dry to handle time, adding the cellulose acetate butyrate resins is undesirable because they are relatively expensive and require more organic solvent be added in the coating composition. Page 3, lines 2-7.

The refinish clearcoat composition of the invention includes an hydroxyl-functional acrylic polymer. Page 3, lines 14-15. The acrylic polymer has a number average molecular weight of at least about 5000 and is polymerized using at least about 45% by weight cycloaliphatic monomer, based on total weight of monomer polymerized. Page 3, lines 15-18.

The claimed composition is extremely fast drying, page 3, lines 22-23, and has particularly good wet sanding and buffing characteristics, page 4, lines 20-22.

When the clearcoat is cured by low temperature baking, the cured clearcoat surface may be taped without leaving tape marks as soon as the substrate is cooled. Page 17, lines 3-5. The comparison between Example 2 of the invention and Comparative Example A illustrates the improved sanding and buffing properties and resistance to tape marks. The refinish clearcoat of Example 2 contained about 1 part by weight of an acrylic resin with at least 45% by weight of cycloaliphatic monomer (Example 1) and a number average molecular weight of at least 5000 to about 9 parts by weight of a second hydroxyl-functional acrylic polymer while Comparative Example A contained only the second hydroxyl-functional acrylic polymer. Examples 3 and 4 further illustrate the benefit of including the acrylic polymer as claimed, even in small amounts, for improved sanding and buffing and resistance to tape marks. Page 21, paragraph 52.

In the method of the invention of refinishing a substrate, a layer of a refinish basecoat composition is applied to a desired area of the substrate. The applied layer of basecoat composition is allowed to dry. The clearcoat composition of the invention is applied over the layer of basecoat.

The refinished substrate of the invention is prepared according to the method of the invention.

## Summary of Evidence Submitted by Applicants During Prosecution

Appellants submitted with the Reply of December 17, 2002 declarations of Ali Rihan and Emerson Keith Colyer providing a comparison between the clearcoat composition of the present invention and the Rink patent composition. The inventors considered polyacrylate resin E3 to be the closest polyacrylate example in the Rink patent. The E3 example had a very low number average molecular weight, 2711, which Mr. Colyer increased to 4100, at the high end of the Rink patent's reported preferred number average molecular weight range. This acrylic is designated Comparative Example B.

Mr. Rihan used the Comparative Example B acrylic resin to prepare a refinish clearcoat composition, designated Comparative Example C. Mr. Rihan performed tests on Comparative Example C and on a refinish clearcoat composition according to the invention, designated Example 5, containing the acrylic resin of Example 1 from the present application. Example 5 had a dust free time of 67.5 minutes, while Comparative Example C had a dust free time of 82.5 minutes. Example 5 had a tack free time of 270 minutes, while Comparative Example C had a tack free time of 360 minutes.

Thus, Example 5 of the present invention provided a substantial reduction in both dust free time (22% less time) and tack free time (33% less time) compared to the closest example of the prior art, adjusted by Applicants to be even closer to the

present invention in number average molecular weight than the actual example E3 in the prior art.

Appellants also submitted with the Reply of December 17, 2002 an excerpt from the article "Coatings" from the *Encyclopedia of Polymer Science and Engineering* to show that automotive refinish coating compositions are recognized in the art as a distinct coatings technology. See, "Coatings," *Encyclopedia of Polymer Science and Engineering*, Supp. Vol., 118-19 (H.F. Mark, ed. 1989).



## Summary of the Patents Cited in Rejection

### *Rink et al., U.S. Patent No. 5,759, 631*

The Rink patent discloses an automotive refinish coating composition comprising an hydroxyl-group containing polyacrylate resin and a crosslinking agent. Abstract; column 1, lines 30-33. The polyacrylate resin is obtaining by polymerizing (a) 5-80 wt.% of a cycloaliphatic (meth)acrylate, (b) 10-50 wt.% of a hydroxyl group-containing (meth)acrylate, (c) 0-25 wt.% of a hydroxyl group-containing monomer different from (a) and (b), (d) 5-80 wt.% of an aliphatic (meth)acrylate that is not cyclic or hydroxyl group-containing, (e) 0-40 wt.% aromatic vinyl hydrocarbon different from (a)-(d), and (f) 0-40 wt.% other monomer different from (a)-(e). Abstract; column 2, line 58 to column 3, line 15.

The Rink patent polyacrylate resin has a number average molecular weight of 1000 to 5000, a ratio of weight average molecular weight to number average molecular weight of less than 5.0, and an hydroxyl number of 60 to 180 mg KOH/g.. Column 3, lines 17-28.

The Rink patent provides examples of its coating acrylate resins and comparative acrylate resins in Table 1. The only cycloaliphatic monomer used in the acrylates of Table 1 is t-butylcyclohexyl acrylate, abbreviated in the table as t-BCA, which is present in resins E1 (14% by weight), E2 (15% by weight), V2 (15% by weight), E3 (42% by weight), E4 (22% by weight), and V4 (23% by weight). The clearcoats prepared from these resins are reported in Table 4 to have dust dry times of

125 minutes (CE1), 190 minutes (CE2), 90 minutes (CV2), 125 minutes (CE3), 125 minutes (CE4), AND 105 minutes (CV4). The clearcoats prepared from these resins are reported in Table 4 to have tack-free times of 280 minutes (CE1), 435 minutes (CE2), 200 minutes (CV2), 330 minutes (CE3), 270 minutes (CE4), AND 200 minutes (CV4). The clearcoat dry film thickness is said to be 50-80 microns (about 2 mils to about 3.1 mils). Col. 10, lines 66-67.

*Rockrath et al., U.S. Patent No. 5,716, 678*

The Rockrath patent discloses a transparent topcoat that is baked for 30 minutes at 130°C (266°F) or 20 minutes at 140°C (284°F). Column 7, lines 24-29; col. 9, lines 46-49.

The topcoat contains an hydroxyl group-containing polyacrylate resin obtainable by polymerizing (a) 10-51% by weight of 4-hydroxy-n-butyl (meth)acrylate, (b) 0-36% by weight other hydroxyl monomer, (c) 28-85% by weight "of an aliphatic or cycloaliphatic ester of methacrylic acid which is different from (a) and (b) and has at least 4 carbon atoms in the alcohol radical, or of a mixture of such monomers," (d) 0-3% by weight ethylenically unsaturated carboxylic acid(s), and (e) 0-20% by weight other ethylenically unsaturated monomers. Column 2, lines 11-35. The polyacrylate resin has a number average molecular weight of from 1500 to 10,000. *Id.* at line 38.

## Issues Presented

1. Are the claims anticipated by the Rink patent, when the Rink patent teaches a refinish composition containing a polyacrylate resin prepared with a broad range of 5 to 80 weight percent of cycloaliphatic (meth)acrylate and Appellants have submitted evidence of unexpected benefits for their refinish clearcoat composition containing an acrylic polymer polymerized with at least about 45% by weight of cycloaliphatic monomer?
2. Are claims 23-25 anticipated by the Rink patent, when the Rink patent discloses a refinish composition containing a polyacrylate resin explicitly limited to a number average molecular weight from 1000 to 5000, while claims 23-25 claim a refinish clearcoat composition containing an acrylic polymer with a number average molecular weight of at least about 8000?
3. Are claims 1-15, 22, and 23 anticipated by the Rockrath patent, when the Rockrath patent teaches a clearcoat composition containing a polyacrylate resin prepared with 28 to 85 weight percent of an aliphatic or cycloaliphatic methacrylate or mixture of such monomers, and Appellants have submitted evidence of unexpected benefits for their refinish clearcoat composition containing an acrylic polymer polymerized with at least about 45% by weight of cycloaliphatic monomer?

4. Are claims 1-15, 22, and 23 anticipated by the Rockrath patent, when the Rockrath patent does not describe a refinish coating and teaches that its clearcoat compositions are cured at high bakes, while Appellants' invention is a *refinish* clearcoat composition, and refinish compositions cure at room temperatures or at temperatures significantly below the high bakes of original finishes?

5. Are claims 16-21, 24, and 25 anticipated by the Rockrath patent, when the Rockrath patent does not describe a method of refinishing a substrate, but instead only describes steps for application of an original, high bake finish to a substrate?

6. Are claims 1-25 improperly rejected for obviousness-type double patenting over the claims of copending Application No. 09/886,742, when the examiner has incorrectly rejected on the grounds that both sets of claims are directed to refinish clearcoat composition, but the claims of copending Application No. 09/886,742 are instead directed to refinish basecoat coating compositions, and the Examiner has provided no reasoning that would support a conclusion that it would be obvious from the basecoat coating composition claims of copending Application No. 09/886,742 to make the presently claimed refinish clearcoat compositions or to carry out the presently claimed refinishing method of applying the refinish clearcoat composition of the invention?

## Grouping of Claims

For purposes of this appeal only, the claims are grouped as follows:

With regard to the rejection over the Rink patent, claims 1-22 are grouped together and claims 23-25 are grouped separately as claiming compositions and methods in which the acrylic polymer has a number average molecular weight of at least about 8000.

With regard to the Rockrath patent, claims 1-15, 22, and 23 are grouped together as claiming refinish clearcoat compositions and claims 16-21, 24, and 25 are grouped separately as claiming methods of refinishing a substrate.

With regard to the rejection for obviousness-type double patenting, all of the claims are grouped together.

## Argument

I. The Rink patent does not anticipate claims 1-22 because the Rink patent does not disclose an acrylic polymer polymerized using the claimed amount of at least about 45% by weight of a cycloaliphatic monomer, based on the total weight of monomers polymerized and having a number average molecular weight of at least about 5000.

To anticipate, the prior art must disclose the claimed range with sufficient specificity. “An anticipating reference must describe the patented subject matter with sufficient clarity and detail to establish that the subject matter existed in the prior art and that such existence would be recognized by persons of ordinary skill in the field of the invention.” *Crown Operations International Ltd. v. Solutia Inc.*, 62 USPQ2d 1917, 1921 (Fed. Cir. 2002). If the claims are directed to only part of a broader range disclosed in the prior art, and there is evidence of unexpected results within the narrower, claimed range not disclosed or appreciated by the prior art, then the prior art does not disclose the claimed subject matter with the required specificity. *Ultradent Products Inc. v. Life-Like Cosmetics, Inc.*, 44 U.S.P.Q.2d 1336 (Fed. Cir. 1997) (to be anticipating, the prior patent must “describe to one of skill in the art the tested combinations, or other combinations meeting the limitations of the claims, from among the many possible candidates.” ; *Minnesota Mining and Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc.*, 24 U.S.P.Q.2d 1321 (Fed. Cir. 1992) (no anticipation when the prior reference was not “exact enough to identify” what the parameters were that would produce the beneficial properties); MPEP 2131.03 (evidence of unexpected results within the claimed narrower range support conclusion narrower range not disclosed with “sufficient specificity” to anticipate).

Such is the present situation. The Rink patent discloses a polyacrylate resin that may have as little as 5 weight percent of cycloaliphatic (meth)acrylate. The Rink patent provides no example of a resin including at least 45% by weight of a cycloaliphatic monomer. All of the examples the Rink patent discloses have less than 45% by weight of a cycloaliphatic monomer, and none of the examples have a number average molecular weight of at least about 5000.

Moreover, there is evidence of unexpected results. As described above in the section "Summary of Evidence Submitted by Applicants During Prosecution," Applicants' claimed coating provides significantly shorter dust dry and tack-free times than those reported by the prior art reference. Applicants considered polyacrylate resin E3 to be the closest polyacrylate example in the Rink patent. The E3 example had an extremely low number average molecular weight, 2711, which, even increased to 4100, had significantly longer dust-free and tack-free times as compared to Applicants' invention. Example 5 according to the invention had a dust free time of 67.5 minutes, while Comparative Example C based on the Rink polyacrylate had a dust free time of 82.5 minutes. Example 5 of the invention had a tack free time of 270 minutes, while Comparative Example C had a tack free time of 360 minutes.

The other Rink patent examples of refinish clearcoats include polyacrylate resins with 14% by weight to 23% by weight t-butylcyclohexyl acrylate and number average molecular weights of from 2400 to 2700.

The Rink patent does not teach one of ordinary skill in the art how to craft a refinish clearcoat composition that will have the advantages of shorter dry times and shorter tack free times. Because the Rink patent does not disclose each and every

limitation of the claims, Appellants respectfully submit that the present invention is patentable. Accordingly, Appellant requests that the rejection be REVERSED.

II. The Rink patent does not anticipate claims 23-25 because the Rink patent does not disclose an acrylic polymer polymerized using the claimed amount of at least about 45% by weight of a cycloaliphatic monomer, based on the total weight of monomers polymerized and having a number average molecular weight of at least about 8000.

Claims 23-25, in which are patentable over the Rink patent for the additional reason that the Rink patent does not disclose a refinish composition as in claim 1 in which the acrylic polymer has a number average molecular weight of at least about 8000. The Rink patent explicitly limits the number average molecular weight of its polyacrylate resin to from 1000 to 5000. Column 2, line 21; column 3, line 17; column 4, lines 5-6; Examples (Table 2 data in column 11).

Further, the rejection is improper because the Examiner has not made a prima facie case that the Rink patent does disclose such a limitation. The examiner does not mention a number average molecular weight of 8000. Moreover, the examiner admits on page 3 of the final Office Action that the reference number average molecular weight is 1000-5000.

Because the Rink patent does not disclose each and every limitation of claims 23-35, Appellants respectfully submit that the present invention is patentable. Accordingly, Appellant requests that the rejection be REVERSED.



III. The Rockrath patent does not anticipate claims 1-15, 22, and 23 because the Rockrath patent does not disclose, explicitly or inherently a refinish coating composition of any type or, specifically, a refinish composition containing an acrylic polymer polymerized using the claimed amount of at least about 45% by weight of a cycloaliphatic monomer, based on the total weight of monomers polymerized and having a number average molecular weight of at least about 5000. .

First, claims 1-15, 22, and 23 are not anticipated by the Rockrath patent because the Rockrath patent, like the Rink patent, does not disclose with *sufficient specificity* a composition containing an acrylic polymer polymerized using the claimed amount of at least about 45% by weight of a cycloaliphatic monomer, based on the total weight of monomers polymerized. The Rockrath disclosure is even less specific than the Rink patent disclosure. While the Rink patent disclosed a broad range of 5-80 weight percent of a cycloaliphatic (meth)acrylate, the Rockrath need not contain a cycloaliphatic monomer at all, as it can instead contain any aliphatic monomer (i.e., linear also) ester of methacrylic acid which is different from its hydroxyl monomers that has at least 4 carbon atoms in the alcohol radical, or of a mixture of such monomers.

Just as for the Rink patent, Appellants' evidence of unexpected results for the refinish clearcoat composition of the invention containing an acrylic polymer having a number average molecular weight of at least about 5000 and polymerized using at least about 45% by weight of a cycloaliphatic monomer demonstrates that the Rockrath patent does not disclose the claimed range (and monomer) with sufficient specificity to establish anticipation. Accordingly, the rejection should be REVERSED.

Secondly, the Rockrath patent does not disclose a *refinish* coating composition. The Rockrath coating compositions are formulated to cure at high bake, OEM cure

conditions. As evidenced by the excerpt from the "Coatings" article from the Encyclopedia of Polymer Science and Engineering and the discussion in paragraphs 3 and 4 of the present application, automotive refinish coating compositions are recognized as a distinct coatings technology. One key attribute and requirement of a refinish coating is the ability to cure at room temperature or a very low temperature of room temperature or up to about 150°F (65°C.). This important attribute is lacking in the Rockrath compositions, which must be cured at high bake temperatures. The Rockrath patent nowhere describes or suggests a refinish coating composition, nor does the Examiner contend that it does. Because it does not describe a refinish coating composition, however, it cannot anticipate the present claims.

Because the Rockrath patent does not disclose each and every limitation of claims 1-15, 22, and 23, Appellants respectfully submit that the rejection must be REVERSED.

IV. The Rockrath patent does not anticipate claims 16-21, 24, and 25 because the Rockrath patent does not disclose, explicitly or inherently a method of refinishing a substrate or a method of refinishing a substrate using a clearcoat coating composition containing an acrylic polymer polymerized using the claimed amount of at least about 45% by weight of a cycloaliphatic monomer, based on the total weight of monomers polymerized and having a number average molecular weight of at least about 5000, or the refinished substrate produced by such a method.

The Rockrath patent only describes a method of applying a coating to a steel panels coated with electrodeposition coating. Column 9, lines 41-53. A method of refinishing a substrate inherently requires application of the refinish coating to a prepared, original finish. The Rockrath patent only describes applying an original finish, not a refinish coating.

Further, claims 16-21, 24, and 25 are patentable over the Rockrath patent because the clearcoat composition applied in step (c) of claim 16 is not disclosed by the Rockrath patent, for all of the reasons discussed above in section III.

Accordingly, Appellants submit that the rejection of these claims over the Rockrath patent should be REVERSED.

- V. Claims 1-25 are improperly rejected for obviousness-type double patenting over the claims of co-pending Application No. 09/886,742 because the Examiner has failed to state grounds that would support a prima facie case of obviousness-type double patenting.

Appellants believe that this rejection should be reversed because the Examiner did not provide reasoning that would support a prima facie case of obviousness-type double patenting. The extent and sum total of the Examiner's rejection is that the present claims and the claims of Application No. 09/886,742 "are not patentably distinct from each other because they both claim clear coating composition [sic] comprising identical ingredients wherein the ranges of those components [sic: presumably of Application No. 09/886,742] overlap with the ranges as instantly claimed." This statement is not correct, however, because, while the present claims are directed to clear coating compositions, the claims of Application No. 09/886,742 are directed to basecoat coating compositions. The Examiner has provided no reasoning that would support a conclusion that the clearcoat composition claimed would have been obvious from the claims alone of the cited application. This is particularly so when clearcoat coatings and basecoat coatings are different types of coatings that must be formulated to meet different requirements.

Accordingly, Applicants submit that a prima facie case of obviousness has not been made out and request that the rejections be withdrawn. For these reasons, Appellants respectfully submit that the present claims are not properly rejected for obviousness-type double patenting. Accordingly, Appellant requests that the rejection be REVERSED.

### Conclusion

The present claims are patentable over the cited Rink and Rockrath patents and, further, are not obvious from the claims of co-pending Application No. 09/886,742. Applicants, therefore, respectfully petition this Honorable Board to reverse the final rejection of the claims on each ground and to indicate that all claims are allowable.

Respectfully submitted,



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Appendix  
*Copy of the Claims Appealed*

1. A refinish composition comprising an hydroxyl-functional acrylic polymer, wherein the acrylic polymer has a number average molecular weight of at least about 5000 and is polymerized using at least about 45% by weight of a cycloaliphatic monomer, based on the total weight of monomers polymerized, and further wherein the refinish composition is a refinish clearcoat composition.

2. A refinish composition according to claim 1, wherein the hydroxyl-functional acrylic polymer is at least about 2% by weight, based on nonvolatile binder material.

3. A refinish composition according to claim 1, wherein the hydroxyl-functional acrylic polymer is at least about 5% by weight, based on nonvolatile binder material.

4. A refinish composition according to claim 1, further comprising a second hydroxyl-functional acrylic polymer.

5. A refinish composition according to claim 1, wherein the acrylic polymer has a weight average molecular weight of at least about 17,000.

6. A refinish composition according to claim 1, wherein the cycloaliphatic monomer comprises a member selected from the group consisting of cyclohexyl acrylate, cyclohexyl methacrylate, isobornyl acrylate, isobornyl methacrylate, and combinations thereof.

7. A refinish composition according to claim 1, wherein the cycloaliphatic monomer is at least about 60% by weight, based on the total weight of monomers polymerized.

8. A refinish composition according to claim 1, wherein the cycloaliphatic monomer is up to about 85% by weight, based on the total weight of monomers polymerized.

9. A refinish composition according to claim 1, wherein the acrylic polymer has an hydroxyl number of from about 45 mg KOH/g polymer to about 75 mg KOH/g polymer.

10. A refinish composition according to claim 1, wherein the acrylic polymer is polymerized from monomers comprising from about 1% to about 25% by weight of a combination of styrene, n-butyl methacrylate, and n-butyl acrylate, based on the total weight of monomers polymerized.

11. A refinish composition according to claim 1, wherein an about 55% by weight solution of the acrylic polymer in n-butyl acetate has a viscosity less than or equal to about 10 Stokes at 25°C.

12. A refinish composition according to claim 1, wherein an about 55% by weight solution of the acrylic polymer in n-butyl acetate has a viscosity less than or equal to about 8.8 Stokes at 25°C.

13. A refinish multi-component coating composition, comprising

- (a) a first component comprising an hydroxyl-functional acrylic polymer that has a number average molecular weight of at least about 5000 and is polymerized using at least about 45% by weight of a cycloaliphatic monomer, based on the total weight of monomers polymerized the hydroxyl-functional acrylic polymer and
- (b) a second component comprising a curing agent;

wherein the refinish coating composition is a clearcoat composition.

14. A refinish multi-component coating composition according to claim 13, wherein the curing agent is reactive with the hydroxyl-functional acrylic polymer.

15. A refinish multi-component coating composition according to claim 13, wherein the first component comprises a further polymer or resin reactive with the curing agent.



16. A method of refinishing a substrate, comprising steps of:
- (a) applying to a desired area of the substrate a layer of a refinish basecoat composition;
  - (b) allowing the applied layer of basecoat composition to dry; and
  - (c) applying over the layer of basecoat composition a clearcoat composition comprising an hydroxyl-functional acrylic polymer, wherein the acrylic polymer has a number average molecular weight of at least about 5000 and is polymerized using at least about 45% by weight of a cycloaliphatic monomer, based on the total weight of monomers polymerized.
17. A method according to claim 16, wherein the clearcoat composition is thermosetting.
18. A method according to claim 16, wherein the clearcoat composition comprises at least one material reactive with the hydroxyl-functional acrylic polymer.
19. A method according to claim 18, wherein the material reactive with the hydroxyl-functional acrylic polymer comprises the isocyanurate of hexamethylene diisocyanate.
20. A method according to claim 16, wherein the substrate is an automotive vehicle or a component of an automotive vehicle.

21. A refinished substrate prepared according to the method of claim 16.
22. A refinish composition according to claim 4, wherein the second hydroxyl-functional acrylic polymer has a number average molecular weight of less than about 5000.
23. A refinish composition according to claim 1, wherein the hydroxyl-functional acrylic polymer that is polymerized using at least about 45% by weight of a cycloaliphatic monomer has a number average molecular weight of at least about 8000.
24. A method of refinishing a substrate according to claim 16, wherein the hydroxyl-functional acrylic polymer that is polymerized using at least about 45% by weight of a cycloaliphatic monomer has a number average molecular weight of at least about 8000.
25. A method of refinishing a substrate according to claim 24, wherein the clearcoat composition further comprises an hydroxyl-functional acrylic polymer having a number average molecular weight of less than about 5000.